



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,034	12/14/2000	Werner Obrecht	Mo-5842/LeA 34,092	4130
34947	7590	07/27/2005	EXAMINER	
LANXESS CORPORATION 111 RIDC PARK WEST DRIVE PITTSBURGH, PA 15275-1112			SERGENT, RABON A	
			ART UNIT	PAPER NUMBER
			1711	
DATE MAILED: 07/27/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/739,034	<b>Applicant(s)</b> OBRECHT ET AL.	
	<b>Examiner</b> Rabon Sergeant	<b>Art Unit</b> 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 April 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-10,15,20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-10,15,20 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____  | 6) <input type="checkbox"/> Other: _____                                    |

15

12

Art Unit: 1711

1. The terminal disclaimer filed on April 29, 2005 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S.

6,649,696 has been reviewed and is accepted. The terminal disclaimer has been recorded.

2. Claims 1, 2, 4-10, 15, 20, and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Neither adequate support nor adequate definition has been provided for the vulcanizing agent, introduced into the claims by the amendment of April 29, 2005. The examiner has reviewed the specification; however, the term, "vulcanizing agent", has not been found. While the terms, "crosslinking agents" and "vulcanization accelerators", have been found, it cannot be determined if the claim terminology corresponds to these components; if it does, then it is unclear why these terms were not used. Again, it is noted that there is no clear disclosure that the term in question equates to any specific language that appears within the specification. Furthermore, applicants' response suggests that the term in question is met by the fillers disclosed at page 9; however, it is not seen how fillers relate to vulcanization. Additionally, it is unclear if the term in question is distinct from the claimed isocyanate component. In summation, it cannot be determined exactly what agents or compounds are encompassed by the term, "vulcanizing agent".

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

Art Unit: 1711

improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1, 2, 4-10, 15, 20, and 21 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6,908,965. Although the conflicting claims are not identical, they are not patentably distinct from each other because each set of claims is drawn to rubber compositions and rubber molded articles comprising double bond containing rubbers, crosslinked rubber particles having the same properties, and multifunctional isocyanates.

U.S. 6,908,965 issued from previously applied U.S. application 10/ 013,025; accordingly, the double patenting rejection has been converted to a non-provisional rejection.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1711

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 2, 4-10, 15, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obrecht et al. ('488) or DE 19701487, each in view of Dammann et al. ('531) or JP 57-212239 or JP 5-17630.

The primary references discloses rubber mixtures comprising double bond containing rubber and crosslinked rubber particles having applicants' claimed properties, wherein the mixtures are useful for producing vulcanisates and molded articles. See abstracts. Components that are considered to correspond to applicants' vulcanizing agent are disclosed at column 4, lines 34+ of Obrecht et al. and within the abstract of DE 19701487 (fillers and processing aids). Though the primary references are silent regarding the addition of a polyisocyanate component to the composition, the use of polyisocyanates within rubber mixtures to improve physical properties was known at the time of invention. This position is supported by the teachings of the secondary references. The secondary references disclose that polyisocyanate containing rubber

Art Unit: 1711

formulations display excellent moldability and bonding resistant to heat and humidity. See abstracts.

6. Therefore, it would have been obvious to incorporate polyisocyanates within the rubber mixtures of the primary references, so as to produce rubber compositions having the improved moldability and bonding characteristics taught by the secondary references.

7. The examiner has carefully reviewed the arguments set forth within applicants' response; however, applicants' arguments are deemed to be insufficient for the following reasons. Firstly, applicants' arguments are not commensurate in scope with applicants' claims. It is by no means clear that applicants' claims require the presence of an accelerator. This position is taken in view of the fact that applicants have not defined "vulcanizing agent". Furthermore, the independent claims possess no limitations requiring the rubber particles to be functionalized with respect to being reactive with isocyanate groups. Additionally, the claims are not limited with respect to reaction temperatures. Secondly, applicants' arguments have not addressed the fact that the secondary reference, Dammann et al., allows for the presence of crosslinked rubbers, uncrosslinked rubbers, and isocyanates with sulfur or sulfur based accelerators. See column 2, line 25 through column 3, line 51, especially column 3, lines 49 and 50. Therefore, it would seem that this reference rebuts applicants' concerns with respect to scorch, premature vulcanization, or safety. Thirdly, applicants' argument with respect to  $t_{10}$  values has been considered; however, the relied upon examples are not commensurate in scope with the claims. Furthermore, it is not clear that the results of the examples rebut the teachings of the relied upon references. Additionally, applicants have provided no clear nexus between the disclosed  $t_{10}$  values and scorch, premature vulcanization, or safety. In the absence of such nexus, applicants'

Art Unit: 1711

arguments concerning scorch, premature vulcanization, or safety amount to unsubstantiated opinion. Furthermore, the criticalness or unexpected properties with respect to scorch, premature vulcanization, or safety alluded to within the response do not appear to have been appreciated or clearly set forth within the specification. Fourthly, applicants have set forth no clear rationale why differences in particle size of the crosslinked particles or silence within the secondary references with respect to the properties of the crosslinked particles negate the teachings concerning the use of the polyisocyanate component. In the absence of evidence or argument to the contrary, the skilled artisan would expect the polyisocyanate component to function within the compositions of the primary references in the same manner disclosed by the secondary references. It is noted that the primary references clearly teach the specifically claimed properties of the crosslinked particles.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 1711

Any inquiry concerning this communication should be directed to R. Sargent at telephone number (571) 272-1079.

R. Sargent  
July 24, 2005

  
**RABON SERGENT  
PRIMARY EXAMINER**